CLAIMS

1. A compound of formula (I):

$$R^2$$
 R^4
 R^4
 R^4
 R^3

or a pharmaceutically acceptable salt thereof, wherein:

R¹ and R² are each independently R, halogen, CN, NO₂, or TR, or R¹ and R² taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5- or 6-membered ring having 0-3 heteroatoms independently selected from N, O, or S;

T is an optionally substituted C_1 - C_4 alkylidene chain wherein up to two methylene units of T are optionally and independently replaced by O, N(R), C(O), S, SO, or SO₂;

Ar¹ is an optionally substituted ring selected from: an aryl group selected from a 5-6 membered monocyclic or an 8-10 membered bicyclic ring having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; a 3-8-membered saturated or partially unsaturated monocyclic ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or an 8-10-membered saturated or partially unsaturated bicyclic ring system having 0-5 heteroatoms independently selected from nitrogen, oxygen, or sulfur; wherein Ar¹ is optionally substituted at one or more carbon atoms with 0-5 occurrences of –Q-R⁵, and at one or more substitutable nitrogen atoms with –R⁶ and each occurrence of R⁶ is independently R¹, -COR¹, -CO₂(C₁-6 aliphatic), -CON(R¹)₂, -SO₂N(R²)₂, or -SO₂R¹;

R³ and R⁴ are each independently Z-R⁷;

each occurrence of Q and Z is independently a bond or an optionally substituted C₁-C₆ alkylidene chain wherein up to two non-adjacent methylene units of Q are optionally replaced by CO, CO₂, COCO, CONR, OCONR, NRNR, NRNRCO, NRCO, NRCO₂, NRCONR, SO, SO₂, NRSO₂, SO₂NR, NRSO₂NR, O, S, or NR;

- each occurrence of R⁵ and R⁷ is independently R', halogen, NO₂, CN, OR', SR', N(R')₂, NR'C(O)R', NR'C(O)N(R')₂, NR'CO₂R', C(O)R', CO₂R', OC(O)R', C(O)N(R')₂, OC(O)N(R')₂, SOR', SO₂R', SO₂N(R')₂, NR'SO₂R', NR'SO₂N(R')₂, PO(OR')₂, C(O)C(O)R', or C(O)CH₂C(O)R'; and
- each occurrence of R is independently hydrogen or an optionally substituted C₁₋₆ aliphatic group; and each occurrence of R' is independently hydrogen or an optionally substituted group selected from C₁₋₈ aliphatic, C₆₋₁₀ aryl, a heteroaryl ring having 5-10 ring atoms, or a heterocyclyl ring having 3-10 ring atoms, or wherein two occurrences of R taken together, R and R' taken together, or two occurrences of R' taken together, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 3-8 membered ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur;

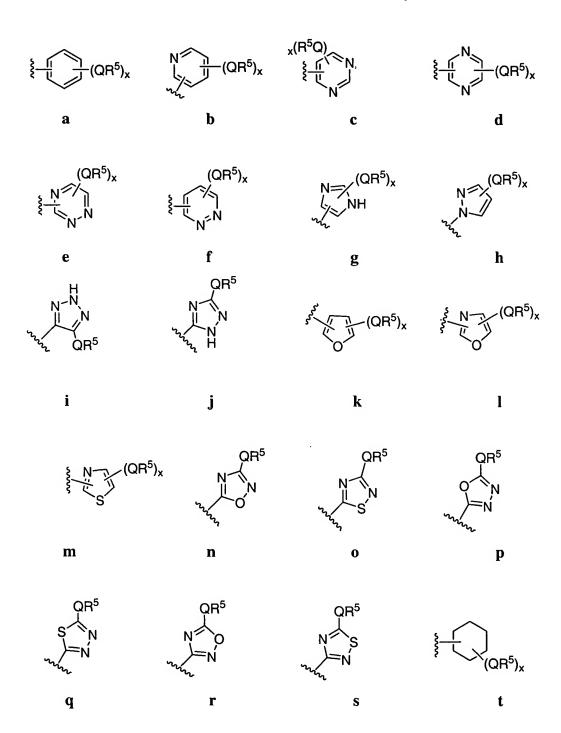
provided that:

when R^1 and R^2 are both hydrogen, R^3 is hydrogen, R^4 is CN, or when R^1 and R^2 are both hydrogen, R^3 is NH₂, R^4 is CN,

then Ar¹ is not phenyl or pyridyl substituted with one or two occurrences of Cl, Me, CH₂NRR', C(O)NRR', or SO₂NRR', wherein R and R' taken together form an optionally substituted saturated 6- or 7-membered ring having 1 or 2 heteroatoms independently selected from nitrogen or oxygen.

- 2. The compound of claim 1, wherein Ar¹ are optionally substituted rings selected from:
 - (a) a phenyl, indanyl, or naphthyl ring;
- (b) a 5-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or
 - (c) a 5-6 membered monocyclic or 9-10 membered bicyclic heteroaryl ring having 1-3 heteroatoms independently selected from oxygen, nitrogen, or sulfur.
- 3. The compound of claim 1, wherein Ar¹ are optionally substituted rings selected from:
 - (a) a phenyl ring;
 - (b) a 5-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or

- (c) a 5-6 membered monocyclic heteroaryl ring having 1-3 heteroatoms independently selected from oxygen, nitrogen, or sulfur.
- 4. The compound of claim 1, wherein Ar¹ is selected from any one of **a-bb**:



wherein x is 0-5.

- 5. The compound of claim 1, wherein Ar¹ is optionally substituted phenyl, pyrimidinyl, or pyridyl.
- 6. The compound of claim 1, wherein Ar^1 is phenyl and is substituted with two (x = 2) or three (x = 3) occurrences of $Q-R^5$ and Ar^1 is:

$$QR^5$$
 QR^5
 QR^5
 QR^5
 QR^5

wherein each occurrence of QR⁵ is independently CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂PO(OR')₂, PO(OR')₂.

7. The compound of claim 1, wherein Q is independently a bond or is an optionally substituted C_1 - C_4 alkylidene chain wherein up to two non-adjacent methylene units of Q are optionally replaced by CO, CO₂, CONR, OCONR, NRCO, NRCO₂, NRSO₂, SO₂NR, O, S, or

NR; and each occurrence of R^5 is independently selected from R', halogen, NO₂, CN, OR', SR', N(R')₂, NR'C(O)R', NR'C(O)N(R')₂, NR'CO₂R', C(O)R', CO₂R', OC(O)R', C(O)N(R')₂, OC(O)N(R')₂, SOR', SO₂R', SO₂N(R')₂, NR'SO₂R', NR'SO₂N(R')₂, PO(OR')₂, C(O)C(O)R', or C(O)CH₂C(O)R', and x is 0, 1, 2, or 3.

- 8. The compound of claim 1, wherein Q-R⁵ substituents on Ar¹ are CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂NHCOR', CH₂PO(OR')₂, PO(OR')₂, or two adjacent occurrences of Q-R⁵, taken together with the atoms to which they are bound, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-8-membered ring having 0-3 heteroatoms selected from nitrogen, oxygen, or sulfur.
- 9. The compound of claim 1, wherein Q-R⁵ substituents on Ar¹ are fluoro, iodo, chloro, bromo, COCH₃, CO₂CH₃, C₁₋₄alkyl, NH₂, CH₂NH₂, NHMe, CH₂NHMe, N(Me)₂, CH₂N(Me)₂, N(Et)₂, CH₂N(Et)₂, NH(phenyl), CO(C₁₋₄alkyl), CH₂CO(C₁₋₄alkyl), NHCO(C₁₋₄alkyl), CH₂NHCO(C₁₋₄alkyl), CN, CH₂CN, OH, C₁₋₄alkoxy, optionally substituted benzyloxy, optionally substituted phenyloxy, CF₃, SO₂NH₂, SO₂NHMe, optionally substituted SO₂(phenyl), SO₂(C₁₋₄alkyl), CONH₂, CH₂PO(OR')₂, or an optionally substituted group selected from a saturated, partially unsaturated, or fully unsaturated 5- or 6-membered ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.
- 10. The compound of claim 1, wherein R^1 and R^2 groups of formula I are each independently hydrogen, $N(R)_2$, SR, OR, or TR, or R^1 and R^2 , taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-membered ring having 0-2 heteroatoms independently selected from N, O, or S.
- 11. The compound of claim 1, wherein R¹ and R² groups are each independently hydrogen, OH, CH₃, CH₂CH₃, OCH₃, CH₂OH, CH₂OCH₃, CH₂NH₂, CH₂NHCH₃, NH₂, or CH₂NH₂, or R¹ and R², taken together, form a fused optionally substituted pyrrolyl, pyrazolyl, or imidazolyl ring.

- 12. The compound of claim 1, wherein R^3 and R^4 are each independently Z- R^7 wherein Z is an optionally substituted $C_{0.4}$ alkylidene chain wherein one methylene unit of Z is optionally replaced by O, NR, NRCO, NRCO₂, NRSO₂, CONR, C(O), C(O)O, and wherein R^7 is selected from halogen, CN, N(R')₂, NHCOR', or R', or wherein R^3 and R^4 , taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-or 6-membered ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.
- 13. The compound of claim 1, wherein R³ and R⁴ are each independently hydrogen, CN, halogen, OH, SH, NH₂, CO₂H, COH, CONH₂, SO₂NH₂, NO₂, (CH₂)_nNRR⁷, wherein R and R⁷, taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur, or R³ and R⁴, taken together with the atoms to which they are bound, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5- or 6-membered ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur, and n is 0, 1, 2, 3, 4, or 5.
- 14. The compound of claim 1, wherein one of R^3 or R^4 is hydrogen, and the other of R^3 or R^4 is $(CH_2)_n halogen$, $(CH_2)_n CN$, $(CH_2)_n OR^7$, $(CH_2)_n NRR^7$, $(CH_2)_n C(O)R^7$, $(CH_2)_n C(O)R^7$, $(CH_2)_n C(O)NRR^7$, $(CH_2)_n SR^7$, wherein R^7 is hydrogen, $(CH_2)_m N(R')_2$, C_1 - C_4 alkyl, an optionally substituted 5- or 6-membered aryl, aralkyl, heteroaryl, or heteroaralkyl group, or R and R^7 , taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur.
- 15. The compound of claim 14, wherein R³ is hydrogen.
- 16. The compound of claim 14, wherein R⁴ is hydrogen.

17. The compound of claim 1, having one of formulas I-A-i, I-A-ii, I-B-i, I-B-ii, I-C-i, I-C-ii, I-D-i, or I-E-i:

$$R^2$$
 R_1
 CH_3
 R_3
 R_3

I-A-i

$$R^2$$
 R^7
 R^7

I-B-i

$$R^2$$
 R_1
 R^7
 R_1
 R_2
 R_3
 R_4
 R_5

I-C-i

$$R^2$$
 HN
 N
 N
 N
 N
 N
 N
 H_3C
 N
 CH_3

I-A-ii

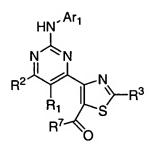
$$R^2$$
 R^4
 R^4
 R^4
 R^4
 R^4
 R^4
 R^4
 R^4
 R^4
 R^4

I-B-ii

$$R^2$$
 R_1
 R_2
 R_1
 R_2
 R_3
 R_4
 R_4
 R_4
 R_4
 R_4
 R_5

I-C-ii

$$R^2$$
 R_1
 R_1
 R_2
 R_1

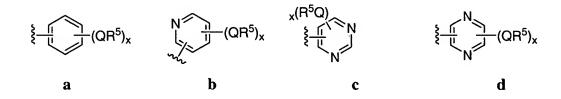


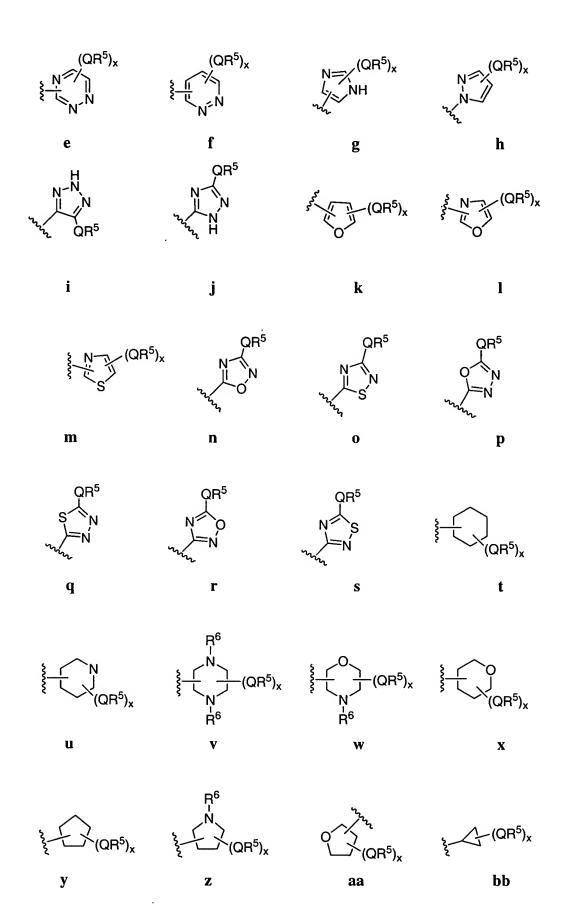
 R^2 R_1 R_2 R_1 R_2 R_1 R_2 R_3 R_4 R_4

I-F-i

I-F-ii

- 18. The compound of claim 17, wherein Ar¹ is:
 - (a) a phenyl, indanyl, or naphthyl ring;
- (b) a 5-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or
 - (c) a 5-6 membered monocyclic or 9-10 membered bicyclic heteroaryl ring having 1-3 heteroatoms independently selected from oxygen, nitrogen, or sulfur.
- 19. The compound of claim 17, wherein Ar¹ is:
 - (a) a phenyl ring;
 - (b) a 5-6 membered heterocyclic ring having 1-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur; or
 - (c) a 5-6 membered monocyclic heteroaryl ring having 1-3 heteroatoms independently selected from oxygen, nitrogen, or sulfur.
- 20. The compound of claim 17, wherein Ar¹ is any one of **a-bb**:





wherein Q and R⁵ are as defined generally above and in subsets herein, and x is 0-5.

- 21. The compound of claim 17, wherein Ar¹ is phenyl, pyrimidinyl, or pyridyl.
- 22. The compound of claim 17, wherein Ar^1 is phenyl and is substituted with two (x = 2) or three (x = 3) occurrences of Q-R⁵ and Ar^1 is:

$$QR^5$$
 QR^5 QR^5 QR^5

wherein each occurrence of QR⁵ is independently CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂PO(OR')₂, PO(OR')₂.

23. The compound of claim 17, wherein Ar¹ is optionally substituted phenyl and compounds have one of formulas II-A-i, II-A-ii, II-B-ii, II-B-ii, II-C-ii, II-C-ii, II-D-i, or II-E-i:

II-A-ii

II-A-i

HN
$$(QR^5)_x$$
 R^2
 R_1
 R^7
 R^7
 R^7
 R^7

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

II-C-i

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ &$$

II-D-i

HN
$$R^2$$
 R^3 R^7 R^7 R^3

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

II-B-ii

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

II-C-ii

$$\begin{array}{c|c} & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & \\ & & & \\ & &$$

II-E-i

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & & \\ & &$$

II-F-ii II-F-ii

where x is 0-5.

- 24. The compound of claim 23, wherein each occurrence of Q is independently a bond or is an optionally substituted C_1 - C_4 alkylidene chain wherein up to two non-adjacent methylene units of Q are optionally replaced by CO, CO₂, CONR, OCONR, NRCO, NRCO₂, NRSO₂, SO₂NR, O, S, or NR; and each occurrence of R^5 is independently selected from R', halogen, NO₂, CN, OR', SR', N(R')₂, NR'C(O)R', NR'C(O)N(R')₂, NR'CO₂R', C(O)R', CO₂R', OC(O)R', C(O)N(R')₂, SOR', SO₂R', SO₂N(R')₂, NR'SO₂R', NR'SO₂N(R')₂, PO(OR')₂, C(O)C(O)R', or C(O)CH₂C(O)R', and x is 0, 1, 2, or 3.
- 25. The compound of claim 23, wherein each occurrence of Q-R⁵ is independently CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂NHCOR', CH₂PO(OR')₂, PO(OR')₂, or two adjacent occurrences of Q-R⁵, taken together with the atoms to which they are bound, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-8-membered ring having 0-3 heteroatoms selected from nitrogen, oxygen, or sulfur.
- 26. The compound of claim 23, wherein each occurrence of Q-R⁵ is independently fluoro, iodo, chloro, bromo, COCH₃, CO₂CH₃, C₁₋₄alkyl, NH₂, CH₂NH₂, NHMe, CH₂NHMe, N(Me)₂, CH₂N(Me)₂, N(Et)₂, CH₂N(Et)₂, NH(phenyl), CO(C₁₋₄alkyl), CH₂CO(C₁₋₄alkyl), NHCO(C₁₋₄alkyl), CH₂NHCO(C₁₋₄alkyl), CN, CH₂CN, OH, C₁₋₄alkoxy, optionally substituted benzyloxy, optionally substituted phenyloxy, CF₃, SO₂NH₂, SO₂NHMe, optionally substituted SO₂(phenyl), SO₂(C₁₋₄alkyl), CONH₂, CH₂PO(OR')₂, or an optionally substituted group selected from a saturated, partially unsaturated, or fully unsaturated 5- or 6-membered ring having 0-3 heteroatoms independently selected from nitrogen, oxygen, or sulfur.

- 27. The compound of claim 23, wherein R^1 and R^2 are each independently hydrogen, $N(R)_2$, SR, OR, or TR, or R^1 and R^2 , taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-membered ring having 0-2 heteroatoms independently selected from N, O, or S.
- 28. The compound of claim 27, wherein R^1 and R^2 are each independently hydrogen, OH, CH₃, CH₂CH₃, OCH₃, CH₂OH, CH₂OCH₃, CH₂NH₂, CH₂NHCH₃, NH₂, or CH₂NH₂, or R^1 and R^2 , taken together, form a fused optionally substituted pyrrolyl, pyrazolyl, or imidazolyl ring.
- 29. The compound of claim 23, wherein R^3 is $Z-R^7$, wherein Z is a bond or is an optionally substituted C_{0-4} alkylidene chain wherein one methylene unit of Z is optionally replaced by O, NR, NRCO, NRCO₂, NRSO₂, CONR, C(O), C(O)O, and wherein R^7 is halogen, CN, N(R')₂, NHCOR', or R'.
- 30. The compound of claim 23, wherein R^3 is $(CH_2)_n$ halogen, $(CH_2)_n CN$, $(CH_2)_n OR^7$, $(CH_2)_n NRR^7$, $(CH_2)_n C(O)R^7$, $(CH_2)_n C(O)R^7$ $(CH_2)_n CH_3$, $(CH_2)_n C(O)NRR^7$, $(CH_2)_n SR^7$, wherein R^7 is $(CH_2)_m N(R')_2$, C_1 - C_4 alkyl, an optionally substituted 5- or 6-membered aryl, aralkyl, heteroaryl, or heteroaralkyl group, or R and R^7 , taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur, R is 0 or 1, and R is 0 or 1.
- 31. The compound of claim 23, wherein R^4 is $Z-R^7$, wherein Z is a bond or is an optionally substituted C_{0-4} alkylidene chain wherein one methylene unit of Z is optionally replaced by O, NR, NRCO, NRCO₂, NRSO₂, CONR, C(O), C(O)O, and wherein R^7 is selected from halogen, CN, N(R')₂, NHCOR', or R'.
- 32. The compound of claim 23, wherein R^4 is $(CH_2)_n$ halogen, $(CH_2)_nCN$, $(CH_2)_nOR^7$, $(CH_2)_nNRR^7$, $(CH_2)_nC(O)R^7$, $(CH_2)_nC(O)R^7$ $(CH_2)_nCH_3$, $(CH_2)_nC(O)NRR^7$, $(CH_2)_nSR^7$, wherein R^7 is $(CH_2)_mN(R^7)_2$, C_1 - C_4 alkyl, an optionally substituted 5- or 6-membered aryl,

aralkyl, heteroaryl, or heteroaralkyl group, or R and R⁷, taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur, n is 0 or 1, and m is 0 or 1.

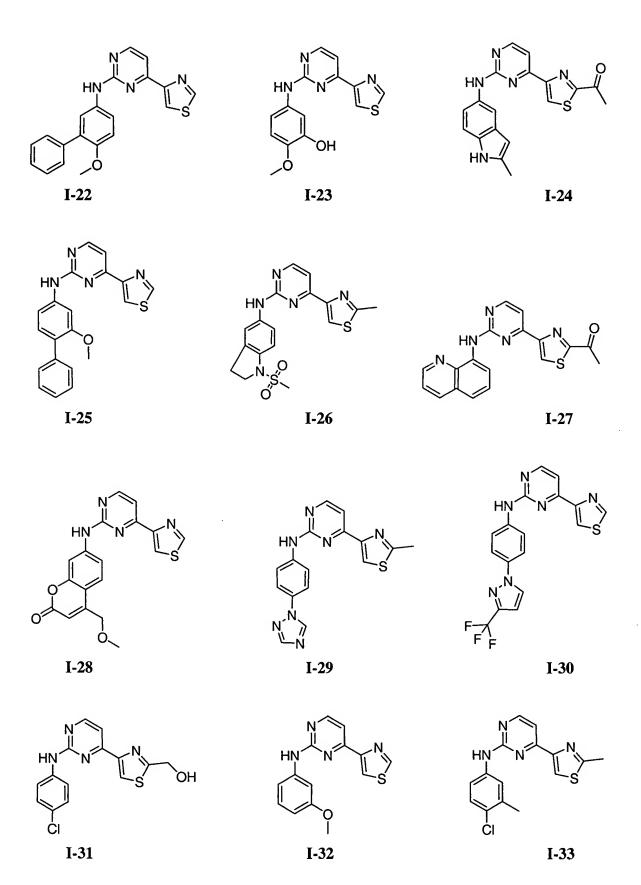
- 33. The compound of claim 23, wherein compounds have one of formulas II-A-i, II-B-i, II-C-i, or II-F-i and the compound variables are defined as:
- a) x is 0, 1, or 2, and Q-R⁵ is CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂NHCOR', CH₂PO(OR')₂, PO(OR')₂, or Q-R⁵, taken together with the atoms to which they are bound, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-8-membered ring having 0-3 heteroatoms selected from nitrogen, oxygen, or sulfur;
- b) R¹ and R² are each independently hydrogen, N(R)₂, SR, OR, or TR, or R¹ and R², taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-membered ring having 0-2 heteroatoms independently selected from N, O, or S; and
- c) R^3 is $(CH_2)_n halogen$, $(CH_2)_n CN$, $(CH_2)_n OR^7$, $(CH_2)_n NRR^7$, $(CH_2)_n C(O)R^7$, wherein R^7 is $(CH_2)_m N(R')_2$, C_1 - C_4 alkyl, an optionally substituted 5- or 6-membered aryl, aralkyl, heteroaryl, or heteroaralkyl group, or R and R^7 , taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur, n is 0 or 1, and m is 0 or 1.
- 34. The compound of claim 23, wherein compounds have one of formulas II-A-ii, II-B-ii, II-C-ii, or II-F-ii and one or more of the compound variables are defined as:
- a) $x ext{ is } 0, 1, 2, \text{ or } 3, \text{ and } Q-R^5 ext{ is } CH_2 \text{halogen, halogen, } CH_2 CN, CN, CH_2 CO_2 R', CO_2 R', CH_2 COR', COR', R', CH_2 NO_2, NO_2, CH_2 OR', OR', CH_2 SR', SR', haloalkyl, CH_2 SO_2 N(R')_2, SO_2 N(R')_2, CH_2 N(R')_2, N(R')_2, NHCOR', CH_2 NHCOR', CH_2 PO(OR')_2, PO(OR')_2, or Q-R^5, taken together with the atoms to which they are bound, form an$

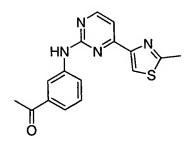
optionally substituted saturated, partially unsaturated, or fully unsaturated 5-8-membered ring having 0-3 heteroatoms selected from nitrogen, oxygen, or sulfur;

- b) R¹ and R² are each independently hydrogen, N(R)₂, SR, OR, or TR, or R¹ and R², taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-membered ring having 0-2 heteroatoms independently selected from N, O, or S; and
- c) R^4 is $(CH_2)_n halogen$, $(CH_2)_n CN$, $(CH_2)_n OR^7$, $(CH_2)_n NRR^7$, $(CH_2)_n C(O)R^7$, wherein R^7 is $(CH_2)_m N(R')_2$, C_1 - C_4 alkyl, an optionally substituted 5- or 6-membered aryl, aralkyl, heteroaryl, or heteroaralkyl group, or R and R^7 , taken together with the nitrogen atom to which they are bound form an optionally substituted 3-8-membered saturated or partially unsaturated ring having 1-3 heteroatoms selected from nitrogen, oxygen, or sulfur, R is 0 or 1, and R is 0 or 1.
- 35. The compound of claim 23, wherein compounds have formula **II-F-i**, and one or more of the compound variables are defined as:
- a) x is 0, 1, 2, or 3, and Q-R⁵ is CH₂halogen, halogen, CH₂CN, CN, CH₂CO₂R', CO₂R', CH₂COR', COR', R', CH₂NO₂, NO₂, CH₂OR', OR', CH₂SR', SR', haloalkyl, CH₂SO₂N(R')₂, SO₂N(R')₂, CH₂N(R')₂, N(R')₂, NHCOR', CH₂NHCOR', CH₂PO(OR')₂, PO(OR')₂, or Q-R⁵, taken together with the atoms to which they are bound, form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-8-membered ring having 0-3 heteroatoms selected from nitrogen, oxygen, or sulfur; and
- b) R¹ and R² are each independently hydrogen, N(R)₂, SR, OR, or TR, or R¹ and R², taken together form an optionally substituted saturated, partially unsaturated, or fully unsaturated 5-membered ring having 0-2 heteroatoms independently selected from N, O, or S.
- 36. The compound of claim 1, selected from:

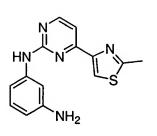
I-1 I-2 I-3 I-4 I-5 **I-6** I-7 I-8 I-9 I-10

I-11





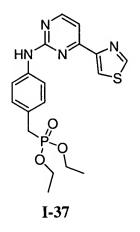
HN N S OH

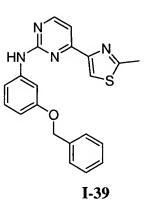


I-34

I-35

I-36





I-40

I-41

.OH I-43 I-44 I-45 I-46 I-47 I-48

- 76 -

I-50

I-51

I-52 I-53 I-54 I-55 I-56 I-57

I-59

I-60

I-61 I-62 I-63 I-64 I-65 I-66 I-67 I-68

- 37. A composition comprising a compound of claim 1, and a pharmaceutically acceptable carrier, adjuvant, or vehicle.
- 38. The composition of claim 37, wherein the compound is in an amount to detectably inhibit SYK, or ZAP-70 protein kinase activity.

- 39. The composition of claim 37, additionally comprising a therapeutic agent selected from an anti-inflammatory agent, an anti-proliferative agent, an immunomodulatory or immunosuppressive agent, or an agent for treating immunodeficiency disorders.
- 40. A method of inhibiting SYK or ZAP-70 kinase activity in:
 - (a) a patient; or

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(b) a biological sample;

which method comprises administering to said patient, or contacting said biological sample with:

- a) a composition of claim 37; or
- b) a compound of claim 1.
- 41. A method of treating or lessening the severity of treatment or lessening the severity of an immunodeficiency disorder, inflammatory disease, allergic disease, autoimmune disease, proliferative disorder, immunologically-mediated disease, or respiratory disorder, comprising the step of administering to said patient:
 - a) a composition of claim 37; or
 - b) a compound of claim 1.
- 42. The method according to claim 41, comprising the additional step of administering to said patient an additional therapeutic agent selected from an anti-inflammatory agent, an anti-proliferative agent, an immunomodulatory or immunosuppressive agent, or an agent for treating immunodeficiency disorders, wherein:

said additional therapeutic agent is appropriate for the disease being treated; and said additional therapeutic agent is administered together with said composition as a single dosage form or separately from said composition as part of a multiple dosage form.

- 43. The method according to claim 41, wherein the disease is an immune disorder.
- 44. The method according to claim 41, wherein the disease is asthma.